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GUIDANCE AND INTRA-OPERATIVE
PATHOLOGY THROUGH
ENDO-MICROSCOPIC TISSUE
DIFFERENTIATION****Publication Classification**

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(71) Applicant: **Siemens Aktiengesellschaft, München**
(DE)(72) Inventors: **Ali Kamen**, Skillman, NJ (US);
Shanhui Sun, Lexington, KY (US);
Terrence Chen, Princeton, NJ (US);
Tommaso Mansi, Plainsboro, NJ (US);
Alexander Michael Gigler,
Untermeitingen (DE); **Patra**
Charalampaki, Leverkusen (DE);
Maximilian Fleischer, Höhenkirchen
(DE); **Dorin Comaniciu**, Princeton
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030095 on May 11, 2015.(57) **ABSTRACT**

Systems and methods for image classification include receiving imaging data of in-vivo or excised tissue of a patient during a surgical procedure. Local image features are extracted from the imaging data. A vocabulary histogram for the imaging data is computed based on the extracted local image features. A classification of the in-vivo or excised tissue of the patient in the imaging data is determined based on the vocabulary histogram using a trained classifier, which is trained based on a set of sample images with confirmed tissue types.

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